

## Research program IZS VE 15/16

**Investigate whether domestic bovines contribute to the overall burden of *Listeria monocytogenes* with pathogenic attitude for humans**

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*Listeria monocytogenes* (LM) has the ability to cause serious invasive disease in humans and animals. It is acknowledged that not all types of LM have the same pathogenic potential for humans and few data are available on the molecular characterization of animal origin strains.

The scope of this proposal is to explore whether domestic bovines (dairy cattle, veal and feedlot cattle) host LM of pathogenic potential for humans and represents a reservoir for LM affecting humans.

The specific objectives are:

- To investigate on LM molecular types originating from a representative sample of bovines. The animal colonization will be detected in faeces and in raw milk which is a fair proxy for faecal contamination
- To compare bovine LM molecular types with isolates from human invasive listeriosis, retrospectively, starting from 2015 strains collected in the study area (Triveneto Regions and Provinces) and prospectively, from ongoing human cases and outbreaks investigations
- To describe the antibiotic resistance patterns of LM strains isolated from bovines and from human invasive listeriosis cases
- To improve networking of Public Health officers so to facilitate epidemiologic investigations after human listeriosis